## I. Amendment to the Specification.

# Change in Inventorship

The inventive entity has been amended. Prosecution of the present application has resulted in the amendment or cancellation of claims resulting in few than all of the originally named inventors being the actual inventors of the invention being claimed. The invention being claimed is based solely on the contribution of inventors Guo-Liang Yu, Jian Ni, and Craig A. Rosen. No new matter has been added by way of this amendment.

### Typographical Errors

The specification has been amended to correct obvious typographical errors with respect to the correction of Greek symbols. For example, at page 11, line 25, the specification recites the phrase "tumor necrosis factors-a (TNF-a) and b (TNF-b or lymphotoxin)". One of ordinary skill in the art would immediately recognize that Applicants intended to refer to --tumor necrosis factors-alpha (TNF-alpha) and beta (TNF-beta or lymphotoxin)--. An amendment to correct an obvious error does not constitute new matter where one skilled in the art would not only recognize the existence of the error in the specification, but also the appropriate correction. See M.P.E.P. § 2163.07. Here, the recognition of the typographical errors, along with the correction of the errors in the specification in the substitution of the corresponding Arabic characters for the intended Greek characters is obvious to one skilled in the art. Therefore, the correction does not constitute new matter.

The specification has also been amended to correct obvious typographical errors with respect to the NaCl and trisodium citrate concentrations for 5xSSC disclosed on page 24, line 29 of the specification. An amendment to correct an obvious error does not constitute new matter where one skilled in the art would not only recognize the existence of the error in the specification, but also the appropriate correction. See M.P.E.P. § 2163.07. Here, the recognition of the typographical errors, along with the correction of the errors in the

specification and claims and in the ingredient amounts listed for 5x SSC is obvious to one skilled in the art; therefore, the correction does not constitute new matter.

5x SSC is a well-known solution used in hybridization solutions. (See, e.g., Exhibit A, CURRENT PROTOCOLS IN MOLECULAR BIOLOGY, John Wiley and Sons, N.Y., at page 2.10.7 (1989).) SSC is normally made as a 20x stock solution, and then diluted accordingly for a particular use. Exhibit B shows that a 20x SSC stock solution contains 3 M NaCl and 0.3 M trisodium citrate. (See, e.g., Exhibit B, CURRENT PROTOCOLS, at page A.2.5.) To make a 5x SSC solution, the 20x solution must be diluted by one-fourth. Therefore, a 5x SSC solution contains 750 mM NaCl (3 M  $\div$  4 = 750 mM) and 75 mM trisodium citrate (0.3 M  $\div$  4 = 75 mM). One skilled in the art would have immediately recognized that the amount of ingredients listed in the specification for a 5x SSC solution was incorrect. Rather than describing a 5x SSC solution, made up of 750 mM NaCl and 75 mM trisodium citrate, the specification inaccurately listed the ingredient amounts for a 1x solution. The skilled artisan, in recognizing the typographical error, could have easily adjusted the amount of ingredients described in the specification to properly make a 5x SSC solution.

Therefore, because no new matter will be added to the specification if these typographical errors are corrected, Applicants respectfully request that the amendments to the specification to recite the correct Arabic representations of the intended Greek characters and the correct concentrations of sodium chloride and sodium citrate in 5x SSC be entered.

#### II. Amendment to the Claims.

New claims 24-94 find support in the claims as originally filed and throughout the specification. Specifically, support for new claims 42-51 is found, for example, at page 6, lines 20-35; at page 41, lines 17-20; at page 42, lines 22-32; and at page 65, line 31 through page 66, line 8. Support for new claims 52-53, 62-63, 72-73, 86-87, and 92-93 is found, for example, at page 70, line 36 through page 71, line 32. Support for new claims 55-61 is found, for example, at page 20, lines 19-36 and at page 21, lines 1-13 and lines 24-28.

Support for new claims 75-85 is found, for example, at page 6, line 35 through page 7, line 3; at page 6, lines 20-35; at page 41, lines 17-20; at page 42, lines 22-32; and at page 65, line 31 through page 66, line 8. Support for new claims 89-91 is found, for example, at page 25, line 23 through page 26, line 17; and at page 46, line 34 through page 47, line 4. Support for new claims 54, 64, 74, 88, and 94 is found, for example, at page 94, lines 6-7. Additional support for new claims 49-50, 57, 60, 67, 70, 78, 81, 84, and 90 is found, for example, at page 21, lines 1-13. Additional support for new claims 49, 51, 58, 61, 68, 71, 79, 82, 85, and 91 is found, for example, at page 74, line 17 through page 79, line 22.

Thus, no new matter has been added by way of amendment.

## III. The Restriction Requirement.

Pursuant to the Restriction Requirement dated September 29, 1999, the Examiner has required an election under 35 U.S.C. § 121 of one of the following groups:

- Claims 1-16, drawn to nucleic acids encoding TNF-gamma-α
  vectors, host cells and methods of making the vector, host cells, and
  the encoded protein, classified in classes 435 and 536, subclasses
  69.5+ and 23.5 respectively;
- II. Claim 17, drawn to TNF-gamma-α, classified in class 530, subclass 350;
- III. Claim 18, drawn to antibody to the TNF-gamma-α, classified in class 530, subclass 388.23;
- IV. Claims 19-20, drawn to methods of treating tumors with the nucleic acid which encodes the TNF-gamma-α, classified in class 514, subclass 44;
- V. Claim 21, drawn to methods of treating Rheumatoid Arthritis with the TNF-gamma-α protein, classified in class 424, subclass 85.1;

- VI. Claims 22-36, drawn to nucleic acids encoding TNF-gamma-β vectors, host cells and methods of making the vector, host cells, and the encoded protein, classified in classes 435 and 536, subclasses 69.5+ and 23.5 respectively;
- VII. Claim 37, drawn to TNF-gamma-β, classified in class 530, subclass 351;
- VIII. Claim 38, drawn to antibody to the TNF-gamma-β, classified in class 530, subclass 388.23;
- IX. Claims 39-40, drawn to methods of treating tumors with the nucleic acid which encodes the TNF-gamma-β, classified in class 514, subclass 44; and
- X. Claim 41, drawn to methods of treating Rheumatoid Arthritis with the TNF-gamma-β protein, classified in class 424, subclass 85.1.

The Examiner contends that the inventions are distinct, each from the other.

In order to be fully responsive, Applicants hereby provisionally elect, with traversal, the invention of Group II, claim 17, drawn to TNF-gamma-α. Applicants point out that claims 2-16, 17, 20, 23-36, and 40 have been canceled and that new claims 42-94 are directed to subject matter falling within the ambit of Group II as cast by the Examiner.

With respect to the Examiner's division of the invention into ten (10) groups and the reasons stated therefor, Applicants respectfully traverse. Even assuming, *arguendo*, that Groups I-X represented distinct or independent inventions, Applicants submit that to search and examine the subject matter of all the Groups together would not be a serious burden on the Examiner. For example, publications which disclose nucleic acids normally also disclose the amino acid sequence encoded by the nucleic acids, thereby making it a simple matter for the Examiner to search and examine polypeptides encoded by the claimed nucleic acids.

The M.P.E.P. § 803 (Seventh Edition, Rev. July 1998) states:

If the search and examination of an entire application can be made without serious burden, the examiner must examine it on the merits, even though it includes claims to independent or distinct inventions.

Thus, in view of M.P.E.P. § 803, the claims of all of Groups I-X should be searched and examined in the subject application.

Accordingly, Applicants respectfully request that the Restriction Requirement Under 35 U.S.C. § 121 be withdrawn and the instant claims be examined in one application.

Applicants retain the right to petition from the restriction requirement under 37 C.F.R. § 1.144.

## Conclusion

Applicants respectfully request that the above-made amendments and remarks be entered and made of record in the file history of the instant application. Applicants believe that this application is in condition for substantive examination. If in the opinion of the Examiner, a telephone conference would expedite prosecution, the undersigned can be reached at the telephone number indicated below.

If there are any fees due in connection with the filing of this paper, please charge the fees to Deposit Account No. 08-3425

Respectfully submitted,

Date: 10/29/99

Joseph J. Kenny (Agent for Applicants

(Reg. No. 43,710)

Human Genome Sciences, Inc.

9410 Key West Avenue Rockville, MD 20850 Telephone: (301) 610-5800

Enclosures KKH/JJK/lcc